

Application Serial No.: 10/657,668
Amdt. dated June 17, 2004
Reply to Office Action of May 17, 2004

REMARKS/ARGUMENTS

The Office Action dated May 17, 2004 and the references cited therein have been carefully considered. In response to the Office Action, Applicants have cancelled Claim 2 and amended Claims 1, 9, 10 and 13, which, when considered with the remarks set forth below, are deemed to place the case in condition for allowance. As a result of the present Amendment, Claims 1 and 3-14 remain in the case for continued prosecution.

In the Office Action, Claims 9-11 have been deemed allowable if rewritten in independent form to include all of the limitations of the base claim and any intervening claims. Applicants thank the Examiner for his indication of allowable subject matter. In response, Applicants have rewritten Claims 9 and 10 in independent form. Accordingly, it is respectfully submitted that Claims 9, 10 and 11, which is dependent on Claim 10, are now in condition for allowance.

Also in the Office Action, Claim 2 has been rejected under 35 U.S.C. §112, second paragraph, as being indefinite. In particular, the Examiner indicates that the term “relatively little” is not defined by the claim or in the specification. In response, Applicants have canceled Claim 2. Accordingly, it is respectfully submitted that the §112 rejection has been overcome.

With respect to the remaining claims, Claims 1 and 4-6 have been rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,881,573 to Ebbeson. Claims 3, 7, 8, 13 and 14 have been rejected under 35 U.S.C. §103(a) as being unpatentable over the '573 Ebbeson patent in view of U.S. Patent No. 5,816,069 to Ebbeson and Claim 12 has been rejected under 35 U.S.C. §103(a) as being unpatentable over the '573 Ebbeson patent in view of U.S. Patent No. 4,548,046 to Brandon et al.

In particular, the Examiner contends that the '573 patent to Ebbeson discloses the basic inventive concept of an adsorption cooler having an evaporator, a condenser and an adsorber, which is intermittently heated in order to increase the efficiency of the product. The Examiner states that the '573 patent to Ebbeson shows a reactor (5), which serves as a “buffer” enclosing the sorber part (6), wherein a working chamber (17) filled with working

liquid (18) is reserved. The Examiner states that the '069 patent to Ebbeson teaches an evaporator located in the upper region of a cooler, the use of zeolite and water and the temperature ranges during the sorption stage. Finally, the Examiner states that the '046 patent to Brandon et al. discloses a radiation screen arranged below the evaporator.

In response, Applicants have amended independent Claims 1 and 13 to define an adsorption cooling apparatus including a condenser disposed within a buffer reservoir having a reservoir medium contained therein. Applicants respectfully submit that none of the cited references, taken alone or combined, teaches or suggests a condenser disposed within a buffer reservoir, as defined in both Claims 1 and 13.

Specifically, the Examiner states that the '573 patent to Ebbeson, cited in the Office Action as the primary reference, discloses a condenser (4) and a reactor (5) which serves as a "buffer." However, even if the reactor (5) disclosed in the '573 patent can be considered a buffer reservoir, as defined in Claims 1 and 13 of the present invention, the condenser (4) of the device taught in the '573 Ebbeson patent is not disposed within the buffer. In this regard, it can be clearly seen from the drawings of the '573 patent that the condenser (4) and the reactor (5) are separate and apart from each other. Thus, the reactor (5) disclosed in the '573 patent does not buffer the condensation heat of the working medium vapor in the condenser, as set forth in Claims 1 and 13.

Similarly, the sorption cooling unit disclosed in the '069 patent to Ebbeson is an entirely different device than that set forth in the claims of the present invention. The sorption unit of the '069 patent is designed to be removed from a refrigerating box and inserted into a regeneration apparatus as required. More importantly, the sorption unit described in the '069 patent does not include a condenser at all.

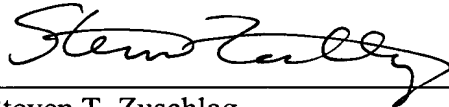
The thermodynamic apparatus disclosed in the '046 patent to Brandon et al. includes a pair of parallel plates (47 and 48) that form a combined "evaporator-condenser." Thus, the '046 patent does not teach or suggest an evaporator connected to a condenser through a connection line, as defined in Claims 1 and 13. Nor does the '046 patent teach or suggest a condenser disposed within a buffer reservoir having a reservoir medium contained therein, as

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set forth in Claims 1 and 13, as amended. Accordingly, it is respectfully submitted that Claims 1 and 13, as amended, as well as the claims that depend therefrom, patentably distinguish over the cited references.

In view of the foregoing amendment and remarks, favorable consideration and allowance of the application with Claims 1 and 3-14 are respectfully solicited. If the Examiner believes that a telephone interview would assist in moving the application toward allowance, he is respectfully invited to contact the Applicants' attorney at the telephone number listed below.

Respectfully submitted,



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